

REMARKS

Claims 1-44, 46-50 and 52-57 are still pending in this application. It is acknowledged that claims 37 and 49 have been allowed, and that claims 9, 10, 21, 22, 33 and 34 have been objected to. Reconsideration of the application is earnestly requested.

Claim Rejections under 35 USC §101

Claims 25-36, 39, 42, 48, 54 and 57 have been rejected because the inventions are directed to non-statutory subject matter. The Office action states that the term "computer readable medium" covers a "carrier wave" which is not an article of manufacture and that a clear disavowal is needed. Accordingly, Applicant hereby disavows that the term "computer readable medium" in these claims covers a "carrier wave," and submits that these claims are now directed to statutory subject matter. It is therefore requested that this rejection under §101 be withdrawn.

Applicant's Response to Examiner's Responses

In paragraph 7d the Office action argues that the instant specification (lines 17-20 at page 9) uses the term "electronic design" to also refer to a design for a software module. But, a careful reading of that passage indicates that such an argument is not accurate. The passage reads:

Generally, the obfuscation circuitry is automatically inserted in non-obfuscated versions of an electronic design (*e.g.*, IP core) by the systems and methods of this invention, which are implemented as software programs (or combinations of hardware and software).

The passage is making clear that the obfuscation circuitry is automatically inserted in an electronic design using systems and methods, and that these *systems and methods* are implemented as software programs. The passage does not state that an electronic design is implemented as or represents a software program. Because this passage does not equate an "electronic design" with a design for a software module, Applicant maintains its position that any software module disclosed by *Jakubowski* cannot anticipate this element.

In paragraph 7e the Office action argues that "adding the obfuscation circuitry" is found in columns 3 and 4 of *Jakubowski* (apparently abandoning the earlier argument that this feature

was taught in column 5). Column 3 does disclose applying selected protection tools 136 as shown in Figure 2 to the digital good 122. But, tools 136 are a variety of software techniques (encryption, Boolean checking, anti-disassembly, etc.) and nowhere is disclosed adding any type of actual circuitry to an electronic design. The software digital good is being manipulated but no additional circuitry is being added.

Column 4 simply discloses that the protected digital good is a version of the software after the protection schemes have been applied. This column notes that the protected digital good is functionally equivalent to the original digital good but prevents illegal copying. By contrast, the second step of claim 1 requires that the obfuscation circuitry prevents practical implementation of electronic design. But, the protection schemes of *Jakubowski*, once applied to the digital good, do not prevent that digital good from operating, running, playing, etc., in fact, the protected digital good is "functionally equivalent to and derived from the original data good 122." Claim 1 requires quite the opposite, namely that the obfuscation circuitry prevents the electronic design from working, *i.e.*, anything but "functionally equivalent." The Office action also refers to Figure 4 as teaching "adding obfuscation circuitry" to an electronic design. But, this figure simply shows that portions of a computer program are protected by any of tools 136 and do not show actual circuitry being added to an electronic design.

Regarding the second step of claim 1, Applicant further argues that this second step requires "wherein said obfuscation circuitry prevents practical implementation of the electronic design on the target hardware device." The Office action does not respond to this argument so Applicant can only assume that this limitation of the second step of claim 1 is not present in *Jakubowski*.

In paragraph 7f the Office action argues that the instant specification discloses that the simulation model is not realized until it is compiled and that the obfuscation is done before compilation is complete. Applicant does not fully understand what "compilation" the Office action is referring to. The cited paragraph of the specification involving decision block 914 does not discuss any compilation. As shown in Figure 2 of the instant specification, any compilation of the electronic design that occurs would have been performed in step 208 before the obfuscation circuitry is added in step 210. Also, the instant specification discusses how creation of the simulation model may need no extra steps after step 210 or may involve modules 212, 214 and 216. Further discussion of creation of the simulation model is discussed at pages 15 and 16 of the instant specification and at page 28, lines 14-22.

In paragraph 7g the Office action responds to Applicant's arguments regarding *Koushanfar et al.* at pages 22 and 23 of Applicant's previous reply by simply listing portions of the reference that had already been cited in the previous Office action. There is no actual response to Applicant's arguments.

In paragraph 7h the Office action responds to Applicant's argument that claims 46-50 require a cycle accurate and bit accurate simulation model by quoting paragraphs from *Meyer et al.* But, these cited portions of the reference do not disclose any simulation model that is cycle accurate and bit accurate and that also includes obfuscation circuitry.

Rejection of Claims under 35 USC §102 and §103

The Office action has rejected claim 1 under §103 as being obvious in view of *Jakubowski et al.* (*Jakubowski*) and *Meyer*. It is requested that this rejection of claim 1 be withdrawn in light of Applicant's arguments in the previous reply and the explanations given above. Claims 2-12 are dependent upon claim 1 and are submitted as being patentable for at least the reasons given above with respect to claim 1.

The Office action has also rejected claims 13 and 25 under §103 as being obvious in view of *Jakubowski* and *Meyer*. Claims 13 and 25 each require similar limitations as claim 1 and are believed patentable for the same reasons. Claims 14-24 and 26-36 are dependent upon claims 13 and 25 respectively, and are submitted as being patentable for at least the reasons given.

The Office action has also rejected claim 38 under §102 as being anticipated in view of *Koushanfar*. Claim 38 requires similar limitations as claim 1 and is believed patentable for the same reasons given.

Claim 39 has been rejected under §102(e) as being anticipated by *Meyer*. Claim 39 is believed patentable for the reasons given in the previous reply and the explanations provided above.

Dependent claims 40-44 require that the added circuitry increase the area of the design. Dependent claims 40-44 and 52-57 are believed patentable for least the reasons set forth above with respect to their independent claims.

Request for Reconsideration of Finality of Previous Office Action under MPEP 706.07 (d)

The Office action is indicated as being final in that "Applicant's amendment necessitated the new ground of rejection." Applicant respectfully requests that the Examiner reconsider the finality of that action for the following reasons. Firstly, no new ground of rejection has been presented; the references and the grounds for rejection remain the same. The only amendment made was to add a step of "identifying a region" as required by the Examiner.

Secondly, the above arguments demonstrate that the claims are patentable over the art of record. Therefore, Applicant submits that the final rejection was premature and requests that the finality of that rejection be withdrawn. Applicant requests that a decision be made on this request before the next deadline of April 9, 2008 so that Applicant can take any action if needed before that deadline.

Reconsideration of this application and issuance of a Notice of Allowance at an early date are respectfully requested. If the Examiner believes a telephone conference would in any way expedite prosecution, please do not hesitate to telephone the undersigned at (612) 252-3330.

Respectfully submitted,
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